

REMARKS

I. Introduction

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims -26, 28, and 30-45 are have been cancelled. The cancellation of claims does not constitute acquiescence in the propriety of any rejection set forth by the Examiner. Applicants reserve the right to pursue the subject matter of the canceled claims in subsequent divisional applications.

Claims 27 and 29 are currently amended.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claims remain under examination in the application, is presented, with an appropriate defined status identifier.

Upon entry of this Amendment, claims 27 and 29 will remain pending in the application.

Because the foregoing amendments do not introduce new matter, entry thereof by the Examiner is respectfully requested.

II. Response to Issues Raised by Examiner in Outstanding Office Action

a. Specification

The Examiner objected to the specification for not incorporating SEQ ID NO's when referring to nucleic acid or amino acid sequences. Office Action, p. 2. Specifically, the Examiner cited page 10, lines 32 and 34; page 11; page 12, lines 28-30; page 14; and page 17, lines 10-11. Applicants have submitted a substitute specification, which incorporates the SEQ ID NO's in the requested areas.

Additionally, the specification is objected to due to the inclusion of a blank on page 17, line 33. Office Action, p. 3. Applicants have amended the specification to remove the section.

b. Drawings

Figure 9 is objected to because the image is too dark and no discernable data can be observed. Office Action, p. 3. Applicants have submitted a replacement Figure 9 to clarify the information presented in the figure. Applicants respectfully request withdrawal of this objection.

c. Brief Description of the Drawings

The specification is objected to because the Brief Description of the Drawings are not referred to properly. Office Action, p. 3. Specifically, the Examiner cites that since the drawings show “Figures 2A-2E”, then the Brief Description of the Drawings should recite “Figures 2A-2E”, instead of “Figure 2”. Applicants amendments to obviate this objection are included in the substitute specification submitted herewith.

d. Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

Claim 27 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Office Action, pp. 3-4. The Examiner asserts that claim 27 is indefinite for reciting an isolated DNA sequence, as shown in SEQ ID NO: 6. Claim 27 has been amended to remove the reference to SEQ ID NO: 6, and insert the correct reference to SEQ ID NO: 10. A person of skill in the art would readily understand the claims as amended. Applicants respectfully request reconsideration and withdrawal of this rejection.

e. Claim Rejections Under 35 U.S.C. § 112, First Paragraph

Claim 27 and 29 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The Office raises numerous issues with

regards to the use of SEQ ID No. 6 and an alleged lack of description regarding any gymnosperm gene involved in lignin biosynthesis. Office Action, pp. 4-6.

Applicants have amended claim 27 to recite an isolated DNA sequence comprising the 5' flanking region of the gymnosperm loblolly pine 4CL1B sequence as shown in SEQ ID No. 10. Applicants believe the reference to this sequence provided in the application should overcome the rejection to claim 27. In addition, claim 29 now recites a promoter region from gymnosperm 4CL genes. Applicants have described methods for the isolation and purification of multiple 4CL genes in loblolly pine in the Examples. A person of skill in the art reading the application would recognize that Applicants have adequately described and characterized multiple loblolly 4CL promoter sequences.

Claims 27 and 29 are rejected under 35 U.S.C. § 112, first paragraph. The Office asserts that the subject matter was not described in the specification in such a way as to enable one skilled in art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. This is based on the indefinite nature of claim 27 and a broad interpretation of claim 29 as relating to any sequence involved in regulation of any part of lignin biosynthesis. Office Action, pp. 6-9.

Applicants have amended claim 27 to refer to SEQ ID No. 10. As Applicants have provided a method of isolating this sequence and provided a complete description of the sequence a person of skill in the art could make and use the invention of claim 27 by following the methods described in the Specification. In addition, claim 29 now recites a promoter region from gymnosperm 4CL genes. Applicants have described methods for the isolation and purification of multiple 4CL genes in loblolly pine in the Examples. A person of skill in the art could follow these methods to make and use the invention of claim 29. Applicants respectfully request reconsideration and withdrawal of the rejection.

f. Claim Rejections - 35 U.S.C. § 102

Claim 29 is rejected under 35 U.S.C. § 102(b) as being anticipated by Kojima et al.(1994, *The Plant Journal*, 6(4):591-596). Office Action, p. 9. The Office asserts that Kojima discloses a chimeric gene containing the pine cab-6 promoter. Applicants have amended claim 29 to recite 4CL genes. Kojima does not disclose a 4CL promoter and

therefore, does not anticipate the current claims. Applicants respectfully request reconsideration and withdrawal of the rejection.

CONCLUSION

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date

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FOLEY & LARDNER LLP

Customer Number: 22428

Telephone: (202) 672-5483

Facsimile: (202) 672-5399

By

Richard C. Peet

Richard C. Peet

Attorney for Applicant

Registration No. 35,792

Amendments to the Drawings:

Please substitute the attached sheet (Figure 9) of formal drawings for the drawing originally filed with the application.